

**A NOVEL MICROORGANISM ISOLATED FROM CHINESE ELM (*ULMUS*
SP.) AND PROCESS FOR PREPARING EXOPOLYSACCHARIDES BY
EMPLOYING THE MICROORGANISM**

Abstract of the Disclosure

5 The present invention relates to a novel *Enterobacter* sp. isolated from the root
bark of Chinese elm, which produces immunostimulating exopolysaccharides with
anticancer activity, a process for preparing the exopolysaccharides by fermenting the
said microorganism in a culture medium, exopolysaccharides prepared by the process
and their uses thereof. The exopolysaccharides of the invention have a molecular
10 weight of 100,000 to 1,000,000 and consist of 40-75% of total sugar, 5-15% of total
acidic sugar and 10-25% of total protein. The exopolysaccharides exhibits a high
immunoenhancing activity in immune cell proliferation, direct mitogenicity and mixed
lymphocyte reaction, and further a high anticancer activity *in vivo* by virtue of
immunostimulation. Moreover, the production of the exopolysaccharides by
15 fermentation of a microorganism, makes it possible to provide the exopolysaccharides
with a uniform quality and mass production without destruction of the plant species.
The exopolysaccharides of the subject invention have practical uses as an active
ingredient for anticancer agents, immunoenhancers and foodstuffs.

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